CLAIMS

I claim:

1. A system for providing RF network performance data in a communication network comprising:

a user network device having a register that can be continually updated with samples of network performance data generated at said user network device;

means for storing multiple samples of the network performance data, the storing means being coupled with the register to facilitate the transfer of data from the register to the storing means; and

means, coupled to the network, for operating a server software program for placing network data stored in the storing means into a data packet or packets and for providing said data packet or packets to the communication network in response to a remotely placed request for data performance data.

2. A method for remotely monitoring the performance of a portion of an RF network, comprising:

compiling a table of information related to a plurality of user devices connected to the network, said table configured for associating multiple samples of network performance data, wherein each if the samples corresponds to one of the user devices, with an identifier of the user device to which each said sample of performance data corresponds;

requesting performance data corresponding to at least one of the user devices, the request being entered at a location remote from said at least one of the user devices for which performance data is being requested;

collecting samples of performance data at each of the user devices for which performance data has been requested;

assembling the collected samples of performance data at each of the user devices for which performance data has been requested into a data packet or packets;

sending the data packet or packets containing performance data from the at least one of the plurality of user devices to the remote location in response to the request for performance data;

receiving the packet or packets of data at the remote location from which the performance data was requested;

mapping the received packet or packets of data into the table;

generating a report based on the samples of performance data received in the data packets; and

presenting the results of the report with a user interface.

3. The method of claim 2 further comprising:

selecting one or more numerical functions for manipulating the performance data corresponding to the at least one of the plurality of user devices for which the performance data was requested; and

performing the selected numerical function or functions on performance data in the table that corresponds to the requested user device or devices in response to the selected numerical function or functions.

4. The method of claim 2 further comprising determining whether a problem exists in the network based on the presentation of the generated report.

5. The method of claim 2 wherein the performance data is IQ data corresponding to symbol data in a QAM modulation scheme.

6. The method of claim 5 wherein the QAM modulation scheme is 256QAM.

7. The method of claim 2 wherein the request for performance data is placed using a personal computer.

8. The method of claim 2 wherein the request for performance data is placed using a telephone.

9. The method of claim 2 wherein the data packet or packets are IP data packets.

10. The method of claim 2 wherein the report is displayed on a computer monitor.

11. The method of claim 2 wherein the report is displayed using a printer.

12. The method of claim 2 wherein the report is displayed using a plotter.

13. A system for providing RF network performance data in a communication network comprising:

a user network device having a register that can be continually updated with samples of network performance data generated at said user network device;

means for storing multiple samples of the network performance data, the storing means being coupled with the register to facilitate the transfer of data from the register to the storing means;

means, coupled to the network, for operating a server software program for placing network data stored in the storing means into a data packet or packets and for providing said data packet or packets to the communication network; and

a remote means, coupled to the network, for operating a client computer program for generating a user-device data table, for receiving the data packet or packets from the communication network, for decoding the data from the data packet or packets and for updating said user-device data table.

14. The system of claim 13 wherein the user network device further comprises an ASIC, wherein the ASIC includes the register.

15. The system of claim 13 wherein the storage means is a computer memory device.

16. The system of claim 15 wherein the computer memory includes an integrated circuit.

17. The system of claim 15 wherein the computer memory includes a disk drive.

18. The system of claim 13 wherein the means for operating a server program includes a microprocessor coupled to the storage means and coupled to the network, the storage means being adapted for storing the server software program and the microprocessor being coupled to the network through a data port.

19. The system of claim 13 wherein the remote means is a personal computer.

20. The system of claim 13 wherein the remote means is a telephone.

21. The system of claim 13 wherein the remote means is a Personal Digital Assistant ("PDA").

22. The system of claim 13 wherein the data packet or packets are IP data packets.

23. The system of claim 13 wherein the user device includes the register, the storage means and the means for operating the server software.

24. A method for remotely monitoring the performance of a portion of an RF network having a plurality of user devices, comprising:

requesting performance data corresponding to at least one of the user devices, the request being entered at a location remote from said at least one of the user devices for which performance data is being requested;

receiving a packet or packets of data at the remote location wherefrom the performance data was requested, the packet being a data packet containing performance data associated with the at least one of the user devices for which the performance data was requested;

mapping samples within the received packet or packets of data into a table, the table configured such that a sample or samples of data corresponding to each of the plurality of user devices can be associated with a user device identifier or identifiers, which is/are associated with the user device or devices to which the sample or samples correspond; and

generating a report based on the data mapped into the table for a given at least one of the user devices.

25. The method of claim 24 wherein the performance data is IQ data corresponding to symbol data in a QAM modulation scheme.

26. The method of claim 25 wherein the QAM modulation scheme is 256QAM.

27. The method of claim 24 wherein the request for performance data is placed using a personal computer.

28. The method of claim 24 wherein the request for performance data is placed using a telephone.

29. The method of claim 24 wherein the request for performance data is placed using a Personal Digital Assistant ("PDA").

30. The method of claim 24 wherein the data packet or packets are IP data packets.

31. The method of claim 24 further comprising determining whether a problem exists in the network based on the generated report.

32. The method of claim 24 wherein the report is displayed on a computer monitor.

33. The method of claim 24 wherein the report is displayed using a printer.

34. The method of claim 24 wherein the report is displayed using a plotter.

35. A method for remotely monitoring the performance of a portion of an RF network having a plurality of network devices, comprising:

receiving a request for performance data corresponding to at least one of the user devices, the request being entered at a location remote from said at least one of the user devices for which performance data is being requested;

collecting samples of performance data at each of the user devices for which performance data has been requested;

assembling the collected samples of performance data at each of the user devices for which performance data has been requested into a data packet or packets; and

sending the packet or packets containing performance data from the at least one of the plurality of user devices to the remote location in response to said request for performance data.

36. The method of claim 35 wherein the performance data is IQ data corresponding to symbol data in a QAM modulation scheme.

37. The method of claim 36 wherein the QAM modulation scheme is 256QAM.

38. The method of claim 35 wherein the request for performance data is placed using a personal computer.

39. The method of claim 35 wherein the request for performance data is placed using a telephone.

40. The method of claim 35 wherein the request for performance data is placed using a Personal Digital Assistant ("PDA").

41. The method of claim 35 wherein the data packet or packets are IP data packets.